

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-12 (Canceled)

13. (New) A polynucleotide comprising a sequence selected from the nucleotide sequences of (i) to (v):

- (i) a nucleotide sequence comprising nucleotides 177 to 2280 of SEQ ID NO: 1 or nucleotides 127 to 2079 of SEQ ID NO: 2, or a sequence complementary to either of said nucleotide sequences;
- (ii) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence;
- (iii) a nucleotide sequence encoding an amino acid sequence in which a signal sequence portion is deleted in the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence;
- (iv) a nucleotide sequence encoding an amino acid sequence with a deletion, insertion, substitution, or addition of one or more amino acids in the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence; and,
- (v) a nucleotide sequence that hybridizes under stringent conditions with the nucleotide sequence of (i).

14. (New) A polynucleotide comprising a sequence selected from the nucleotide sequences of (i) to (v), wherein the nucleotide sequences encode a 65B13 polypeptide expressed specifically in dopaminergic neuron precursor cells immediately after cell cycle exit, or an antigenic fragment thereof,

- (i) a nucleotide sequence comprising nucleotides 177 to 2280 of SEQ ID NO: 1 or nucleotides 127 to 2079 of SEQ ID NO: 2, or a sequence complementary to either of said nucleotide sequences;
 - (ii) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence;
 - (iii) a nucleotide sequence encoding an amino acid sequence in which a signal sequence portion is deleted in the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence;
 - (iv) a nucleotide sequence encoding an amino acid sequence with a deletion, insertion, substitution, or addition of one or more amino acids in the amino acid sequence of SEQ ID NO: 3 or 4, or a sequence complementary to said nucleotide sequence; and,
 - (v) a nucleotide sequence that hybridizes under stringent conditions with the nucleotide sequence of (i).
15. (New) A vector that comprises the polynucleotide of claim 13 or 14.
16. (New) A host cell that comprises the polynucleotide of claim 13 or 14, or a vector comprising the polynucleotide.
17. (New) A polypeptide encoded by the polynucleotide of claim 13 or 14.
18. (New) A fragment of the polypeptide of claim 17, comprising at least eight amino acid residues.
19. (New) An antibody against the polypeptide of claim 17 or a fragment of the polypeptide, the fragment comprising at least eight amino acid residues.
20. (New) A nucleotide chain that encodes the polypeptide fragment of claim 18.

21. (New) A method of selecting a dopaminergic neuron, wherein the method comprises the step of contacting the antibody of claim 19 with a cell sample thought to comprise a dopaminergic neuron precursor cell.

22. (New) A method of selecting a dopaminergic neuron, wherein the method comprises the step of contacting a peptide comprising at least an extracellular portion of the polypeptide of claim 17 with a cell sample thought to comprise a dopaminergic neuron precursor cell.

23. (New) A dopaminergic neuron precursor cell immediately after cell cycle exit, wherein the cell is selected using the method of claim 21.

24. (New) A method of isolating a gene specific to a dopaminergic neuron precursor cell, and a stage-specific gene during maturation of a precursor cell into a dopaminergic neuron, wherein the method comprises the step of detecting and isolating a gene specifically expressed in the precursor cell of claim 23, or a cell differentiated, induced, or proliferated from said precursor cell.

25. (New) A method of screening using maturation as an index, wherein the method comprises the steps of contacting a test substance with the precursor cell of claim 23, and detecting the differentiation or proliferation of said precursor cell as a result of the contact.

26. (New) A dopaminergic neuron precursor cell immediately after cell cycle exit, wherein the cell is selected using the method of claim 22.

27. (New) A method of isolating a gene specific to a dopaminergic neuron precursor cell, and a stage-specific gene during maturation of a precursor cell into a dopaminergic neuron, wherein the method comprises the step of detecting and isolating a gene specifically expressed in the precursor cell of claim 26, or a cell differentiated, induced, or proliferated from said precursor cell.

28. (New) A method of screening using maturation as an index, wherein the method comprises the steps of contacting a test substance with the precursor cell of claim 26, and detecting the differentiation or proliferation of said precursor cell as a result of the contact.